

Claims

- [c1] 1. A suspension adjustment actuator apparatus for use in adjusting the suspension of a handlebar-steered vehicle, the apparatus comprising:
- a body attachable to a handlebar of the handlebar-steered vehicle;
 - an actuator assembly including a lever arm in pivoting engagement with the body about a pivot axis spaced apart from an axis of the handlebar, the lever arm associated with a suspension adjust cable; and
 - an actuator control assembly, the actuator control assembly including:
 - a locking assembly associated with each of the body and the actuator assembly, the locking assembly configured to prevent pivoting of the actuator assembly relative to the body in a first position corresponding to a first suspension setting; and
 - an adjustment assembly associated with each of the body and the actuator assembly, the adjustment assembly configured to prevent pivoting of the actuator assembly relative to the body in a second position corresponding to a second suspension setting, wherein the second suspension setting is adjustable through the ad-

justment assembly independently of the first suspension setting.

[c2] 2.The apparatus of claim 1 wherein the first suspension setting is substantially rigid.

[c3] 3.The apparatus of claim 1 wherein the locking assembly further comprises:

a locking guide surface having a locking region;

a locking follower assembly including:

a follower pin configured to travel along the locking guide surface and capable of engagement with the locking region of the locking guide surface; and

a follower actuator configured to release the follower pin from the locking region of the locking guide surface, the locking guide surface disposed on one of the actuator assembly and the body, the locking follower assembly is associated with the other of the actuator assembly and the body.

[c4] 4.The apparatus of claim 3 wherein the locking follower assembly further comprises a biasing member associated with the follower actuator, the biasing member biasing the follower pin into engagement with the locking region of the locking guide surface.

[c5] 5.The apparatus of claim 3 wherein the locking guide

surface is disposed on the lever arm of the actuator assembly and the locking follower assembly is associated with the body.

[c6] 6.The apparatus of claim 5 wherein the first suspension setting is substantially rigid.

[c7] 7.The apparatus of claim 1 wherein the adjustment assembly further comprises:
an adjustment guide surface disposed on one of the body and the actuator assembly;
an adjustment follower assembly associated with the other of the body and the actuator assembly, the adjustment follower assembly including:
an adjustment screw having a threadform disposed thereon, the adjustment screw being translationally fixed and rotatable relative to the other of the body and the actuator assembly; and
an adjustment follower having a threadform disposed thereon matingly engaged with the threadform disposed on the adjustment screw and a pin emanating therefrom, wherein the adjustment follower is substantially prevented from rotation relative to the other of the body and the actuator assembly, to in turn, facilitate translation of the adjustment follower relative to the adjustment screw upon rotation of the adjustment screw, the pin on the adjustment follower configured to engage the ad-

justment guide surface to prevent pivoting of the actuator assembly relative to the body in the second position.

- [c8] 8.The apparatus of claim 7 wherein the adjustment screw further includes an adjustment wheel associated therewith, wherein rotation of the adjustment wheel imparts rotation to the adjustment screw.
- [c9] 9.The apparatus of claim 7 wherein the adjustment guide surface is disposed on the lever arm of the actuator assembly and the adjustment follower assembly is associated with the body.
- [c10] 10.The apparatus of claim 9 wherein the first suspension setting is substantially rigid.
- [c11] 11.The apparatus of claim 1 wherein the pivot axis of the lever arm is substantially parallel with an axis of the handlebar, to in turn, facilitate the actuation of the lever arm with one of a digit and a hand of a user.
- [c12] 12.The apparatus of claim 11 wherein the lever arm further includes:
a cable securing assembly; and
an actuation tab.
- [c13] 13.The apparatus of claim 11 wherein a cable moment arm created by the cable securing assembly and the

pivot axis is smaller than an actuation moment arm created by the actuation tab and the pivot axis.

[c14] 14.The apparatus of claim 13 wherein the first suspension setting is substantially rigid.

[c15] 15.The apparatus of claim 1 wherein the body further comprises an attachment assembly including a ring clamp capable of substantially concentric position about the handlebar.

[c16] 16.A suspension adjustment actuator apparatus for use in adjusting a suspension of a handlebar-steered vehicle, the apparatus comprising:
a body attachable to a handlebar of the handlebar-steered vehicle;
an actuator assembly including a lever arm in pivoting engagement with the body about a pivot axis, the lever arm associated with a suspension adjust cable; and
an actuator control assembly configured to facilitate the repeated switching of the actuator assembly between a first position corresponding to a first suspension setting and a second position corresponding to a second suspension setting, wherein the second suspension setting is adjustable without affecting the first suspension setting.

- [c17] 17.The apparatus of claim 16 wherein the actuator control assembly further includes a locking assembly configured to prevent movement of the lever arm of the actuator assembly relative to the body in the first position.
- [c18] 18.The apparatus of claim 17 wherein the locking assembly includes a push-button associated with the body, the push-button operable to release the lever arm from the first position.
- [c19] 19.The apparatus of claim 18 wherein the locking assembly further comprises:
a locking guide surface having a locking region; and
a locking follower assembly including the push-button with a follower pin disposed thereon, the follower pin configured to be releasably positionable within the locking region of the locking guide surface.
- [c20] 20.The apparatus of claim 19 wherein the locking follower assembly further comprises a biasing member associated with the push-button, the biasing member biasing the follower pin into engagement with the locking region of the locking guide surface.
- [c21] 21.The apparatus of claim 20 wherein the first suspension setting is substantially rigid.
- [c22] 22.The apparatus of claim 16 wherein the actuator con-

trol assembly further includes an adjustment assembly configured to prevent movement of the lever arm relative to the body in the second position.

[c23] 23.The apparatus of claim 22 wherein the adjustment assembly comprises an adjustment guide surface and a translationally adjustable mating pin configured to engage the adjustment guide surface.

[c24] 24.The apparatus of claim 23 wherein the adjustment assembly further comprises:
an adjustment screw being translationally fixed and rotatable relative to the body and having a threadform disposed thereon; and
an adjustment follower having a threadform disposed thereon matingly engaged with the threadform disposed on the adjustment screw, the mating pin disposed on the adjustment follower, the adjustment follower being rotatively fixed relative to the body, whereby rotation of the adjustment screw translates the adjustment follower, and in turn the mating pin, along the adjustment screw.

[c25] 25.The apparatus of claim 24 wherein the first suspension setting is substantially rigid.

[c26] 26.The apparatus of claim 16 wherein the pivot axis of the lever arm is substantially parallel to and spaced apart

from an axis of the handlebar.